

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒**APPLICATION FOR PERMIT TO DRILL****1. WELL NAME and NUMBER**

Moon 4-20-4-2

**2. TYPE OF WORK**DRILL NEW WELL ☒ REENTER P&A WELL ☐ DEEPEN WELL ☐**3. FIELD OR WILDCAT**

UNDESIGNATED

**4. TYPE OF WELL**

Oil Well Coalbed Methane Well: NO

**5. UNIT or COMMUNITIZATION AGREEMENT NAME****6. NAME OF OPERATOR**

HARVEST (US) HOLDINGS, INC

**7. OPERATOR PHONE**

281 899-5722

**8. ADDRESS OF OPERATOR**

1177 Enclave Parkway, Houston, TX, 77077

**9. OPERATOR E-MAIL**

jmckee@harvestnr.com

**10. MINERAL LEASE NUMBER  
(FEDERAL, INDIAN, OR STATE)  
Fee****11. MINERAL OWNERSHIP**FEDERAL ☐ INDIAN ☐ STATE ☐ FEE ☒**12. SURFACE OWNERSHIP**FEDERAL ☐ INDIAN ☐ STATE ☐ FEE ☒**13. NAME OF SURFACE OWNER (if box 12 = 'fee')**

Moon Ranch, LLC

**14. SURFACE OWNER PHONE (if box 12 = 'fee')****15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')**

P.O. Box 154, ,

**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')****17. INDIAN ALLOTTEE OR TRIBE NAME  
(if box 12 = 'INDIAN')****18. INTEND TO COMMINGLE PRODUCTION FROM  
MULTIPLE FORMATIONS**YES ☐ (Submit Commingling Application) NO ☒**19. SLANT**VERTICAL ☒ DIRECTIONAL ☐ HORIZONTAL ☐**20. LOCATION OF WELL****FOOTAGES****QTR-QTR****SECTION****TOWNSHIP****RANGE****MERIDIAN****LOCATION AT SURFACE**

2131 FSL 1842 FWL

NESW

20

4.0 S

2.0 W

U

**Top of Uppermost Producing Zone**

2131 FSL 1842 FWL

NESW

20

4.0 S

2.0 W

U

**At Total Depth**

2131 FSL 1842 FWL

NESW

20

4.0 S

2.0 W

U

**21. COUNTY**

DUCHESNE

**22. DISTANCE TO NEAREST LEASE LINE (Feet)**

509

**23. NUMBER OF ACRES IN DRILLING UNIT**

40

**25. DISTANCE TO NEAREST WELL IN SAME POOL  
(Applied For Drilling or Completed)**

1400

**26. PROPOSED DEPTH**

MD: 6600 TVD: 6600

**27. ELEVATION - GROUND LEVEL**

5408

**28. BOND NUMBER**

B004657

**29. SOURCE OF DRILLING WATER /  
WATER RIGHTS APPROVAL NUMBER IF APPLICABLE**

Neil Moon Pond

**ATTACHMENTS****VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES**

WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER



COMPLETE DRILLING PLAN



AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)



FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER

DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY  
DRILLED)

TOPOGRAPHICAL MAP

**NAME** Terry Hoffman**TITLE** Permitting Agent**PHONE** 303 250-0619**SIGNATURE****DATE** 12/29/2008**EMAIL** tlhoffman@q.com**API NUMBER ASSIGNED**  
43013500020000**APPROVAL**


Permit Manager

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	8.625	0	600		
Pipe	Grade	Length	Weight			
	Grade J-55 ST&C	600	24.0			

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Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	5.5	0	6600		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	6600	15.5			

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**CONFIDENTIAL STATUS**

**HARVEST (US) HOLDINGS, INC.**

**MOON #4-20-4-2**  
 NESW Section 20-T4S-R2W  
 Duchesne County, Utah

**DRILLING PROGRAM**

**1. GEOLOGIC SURFACE FORMATION**

Uinta formation of Upper Eocene Age

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS**

UINTAH 0' – 2,750'  
 GREEN RIVER 2,750'  
 TD 6,600'

**3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS**

Green River Formation (Oil) 2,750' – 6,600'

Fresh water may be encountered in the Uintah Formation, but would not be expected below about 350'.

**4. PROPOSED CASING PROGRAM**

**a. Casing Design:**

Size	Interval		Weight	Grade	Coupling	Design Factors		
	Top	Bottom				Burst	Collapse	Tension
Surface Casing 8-5/8" Hole Size 12-1/4"	0'	600'	24.0	J-55	STC	2,950 psi 9.96 SF	1,370 psi 5.23 SF	244,000 lbf 16.9 SF
Prod. Casing 5-1/2" Hole Size 7-7/8"	0'	6,600'	15.5	J-55	LTC	4,810 psi 2.29 SF	4,040 psi 1.92 SF	217,000 lbf 2.12 SF

Assumptions:

- 1) Surface casing Maximum Allowable Surface Pressure (MASP) = Fracture gradient - Gas gradient
- 2) Production casing MASP (production mode) = Pore pressure - gas gradient
- 3) All collapse calculations assume fully evacuated casing w/gas gradient
- 4) All tension calculations assume air weight

Fracture gradient at surface casing shoe = 13.0 ppg  
 Pore pressure at surface casing shoe = 8.33 ppg  
 Pore pressure at production casing shoe = 8.33 ppg  
 Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

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All casing strings shall have a minimum of one (1) centralizer on each of the bottom three (3) joints.

**b. Cementing Design:**

Job	Fill	Description	Sacks	OH Excess*	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
			ft <sup>3</sup>			
Surface casing	600'	Class G w/ 2% CaCl	276	30%	15.8	1.17
			322			
Prod. casing Lead	4,600'	Prem Lite II w/ 10% gel + 3% KCl	318	30%	11.0	3.26
			1036			
Prod. casing Tail	2,000'	50/50 Poz w/ 2% gel + 3% KCl	363	30%	14.3	1.24
			451			

\*Actual volume pumped will be 15% over the caliper log.

-Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours.

-Compressive strength of tail cement: 2500 psi @ 24 hours

Waiting on Cement (WOC): A minimum of four (4) hours shall elapse prior to attempting any pressure testing of the BOP equipment which would subject the surface casing cement to pressure, and a minimum of six (6) hours shall elapse before drilling out the wiper plug, cement, or shoe is begun. WOC time shall be recorded in the Driller's Log. Compressive Strength shall be a minimum of 500 psi prior to drilling out.

The 8-5/8" surface casing shall, in all cases, be cemented back to surface. In the event that during the primary surface cementing operation, the cement does not circulate to surface, or if the cement level should fall back more than 8' from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

The production casing cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals.

As a minimum, usable water zones shall be isolated and/or protected by having a cement top for the production casing at least 200' above the base of the usable water. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable pre-flush fluid, inner string cement method, etc., shall be utilized to help isolate the cement from contamination by the mud being displaced ahead of the cement slurry.

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or to 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective action shall be taken.

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**5. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS**

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Vis</u>	<u>Water Loss</u>
0-3200'	*Water	8.33	27	N/C
3200-TD	Water	8.4	27	N/C

\*or an air/mist system

From surface to  $\pm 3200$  feet will be drilled with either fresh water or an air/mist system, depending on the drilling contractor's capabilities. From about 3200 feet, or in the case of the air/mist system when hole conditions dictate, to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCL substitute additive. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 ppg. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite, and if pressure conditions warrant, with barite.

**6. AUXILIARY SAFETY EQUIPMENT TO BE USED**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

**7. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL**

The Company's minimum specifications for pressure control equipment for a standard Green River well are as follows:

A 2000 psi WP hydraulic BOP stack consisting of two ram preventers (double or two singles) and either an annular preventer or a rotating head. If no annular preventer is used, ram blocks will be changed to match the outside diameter of casing and the stack will be retested prior to running any casing string.

Connections – All components on the stack and choke and kill lines shall have either flanged, studded, clamp hub or equivalent proprietary connections except control line outlets and pressure gauges.

Choke Manifold – The minimum equipment requirements are shown below. The choke manifold shall be located at least 5 feet from the BOP stack, outside the substructure.

Pressure Monitoring – A means of monitoring the inlet pressure of the choke manifold shall be provided. The capability to isolate this outlet shall be provided.

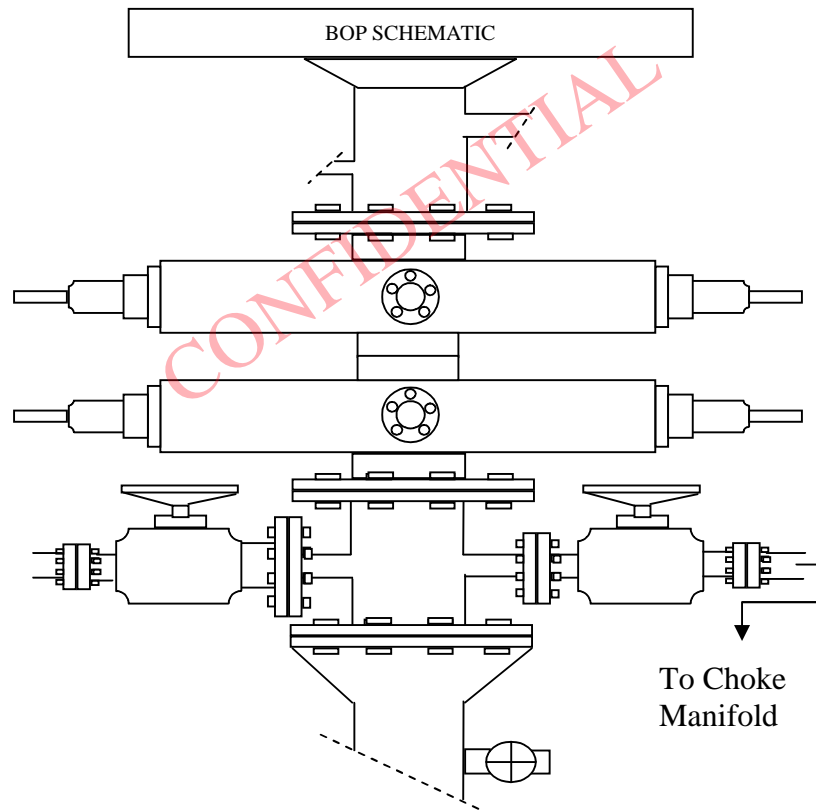
Drill String Control Devices – An upper and lower Kelly valve, drill string safety valve, including correct closing handle, and an inside BOP shall be provided. The safety valve and inside BOP shall have connections or crossovers to fit all tubulars with OD to allow adequate clearance for running in the hole. All drill string valves shall be rated to the required BOP working pressure.

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 (BLM) for equipment and testing requirements, procedures, etc., for a 2000 psi system, and individual components shall be operable as designed.

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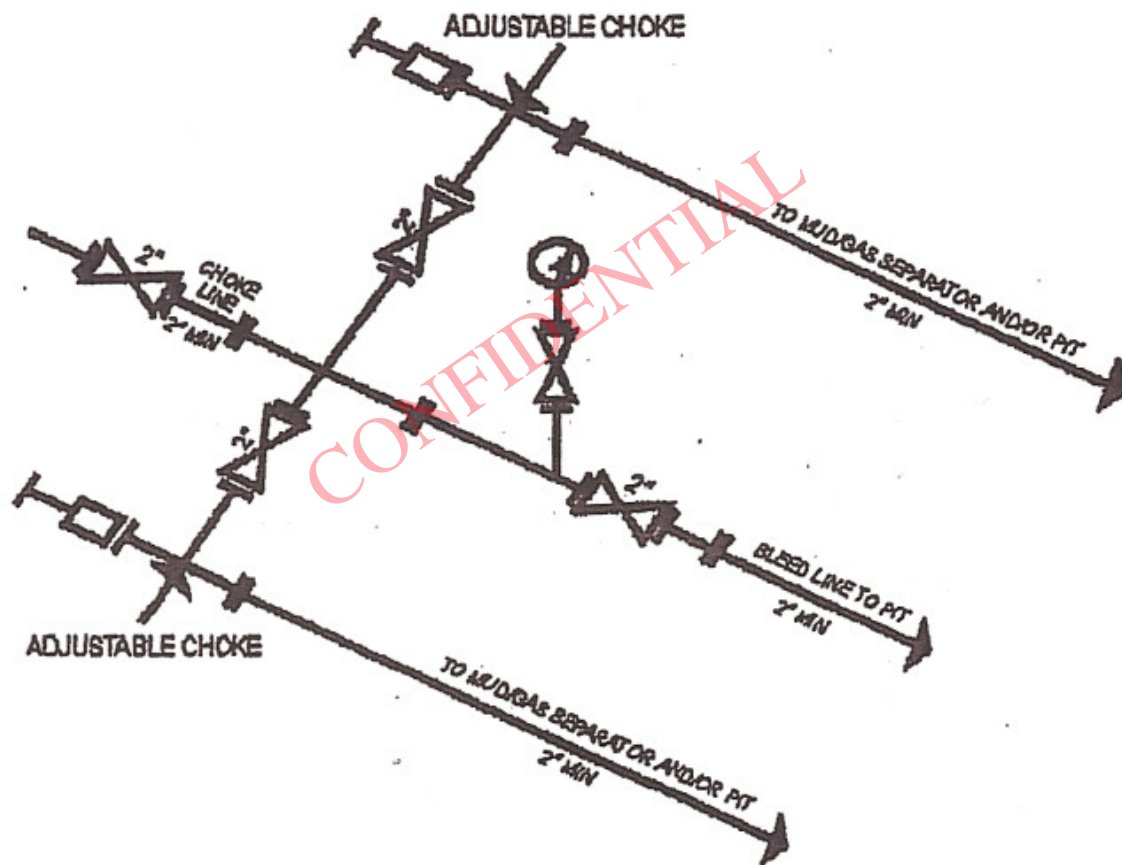
Function test of the BOP equipment shall be made daily. All required BOP tests and/or drills shall be recorded in the Daily report.

Chart recorders will be used for all pressure tests. Test charts, with individual test results identified, shall be maintained on location while drilling.



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2000 psi Choke Manifold





***CONFIDENTIAL STATUS***

**8. TESTING, LOGGING AND CORING PROGRAMS**

**a. Logging Program:**

FDC/CNL/GR/DLL:

TD – 3,200'

CBL: A cement bond log will be run from TD to the cement top of the production casing.

Note: The log types run may change at the discretion of the geologist.

**b. Cores:** As deemed necessary

**c. Drill Stem Tests:** No DSTs are planned in the Green River

Drill stem tests, if they are run, will adhere to the following requirements: Initial opening of the drill stem test tools shall be restricted to daylight hours unless specific approval to start during other hours is obtained from the Authorized Officer (AO). However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vapor-proof for safe operations). Packers can be released, but tripping shall not begin before daylight, unless prior approval is obtained from the AO. Closed chamber DSTs may be performed day or night.

Some means of reverse circulation shall be provided in case of flow to the surface showing evidence of hydrocarbons.

Separation equipment required for the anticipated recovery shall be properly installed before a test starts.

If a DST is performed, all engines within 100 feet of the wellbore that are required to be operational during the test shall have spark arresters or water-cooled exhausts.

**9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE**

No abnormal pressures or temperatures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated bottom hole pressure will be fresh water gradient, i.e., 0.433 psi/foot of depth.

**10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

Anticipated Commencement Date:

Upon approval of the site specific APD

Drilling Days:

Approximately 7

Completion Days:

Approximately 10-14

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**11. CONTACT INFORMATION:**

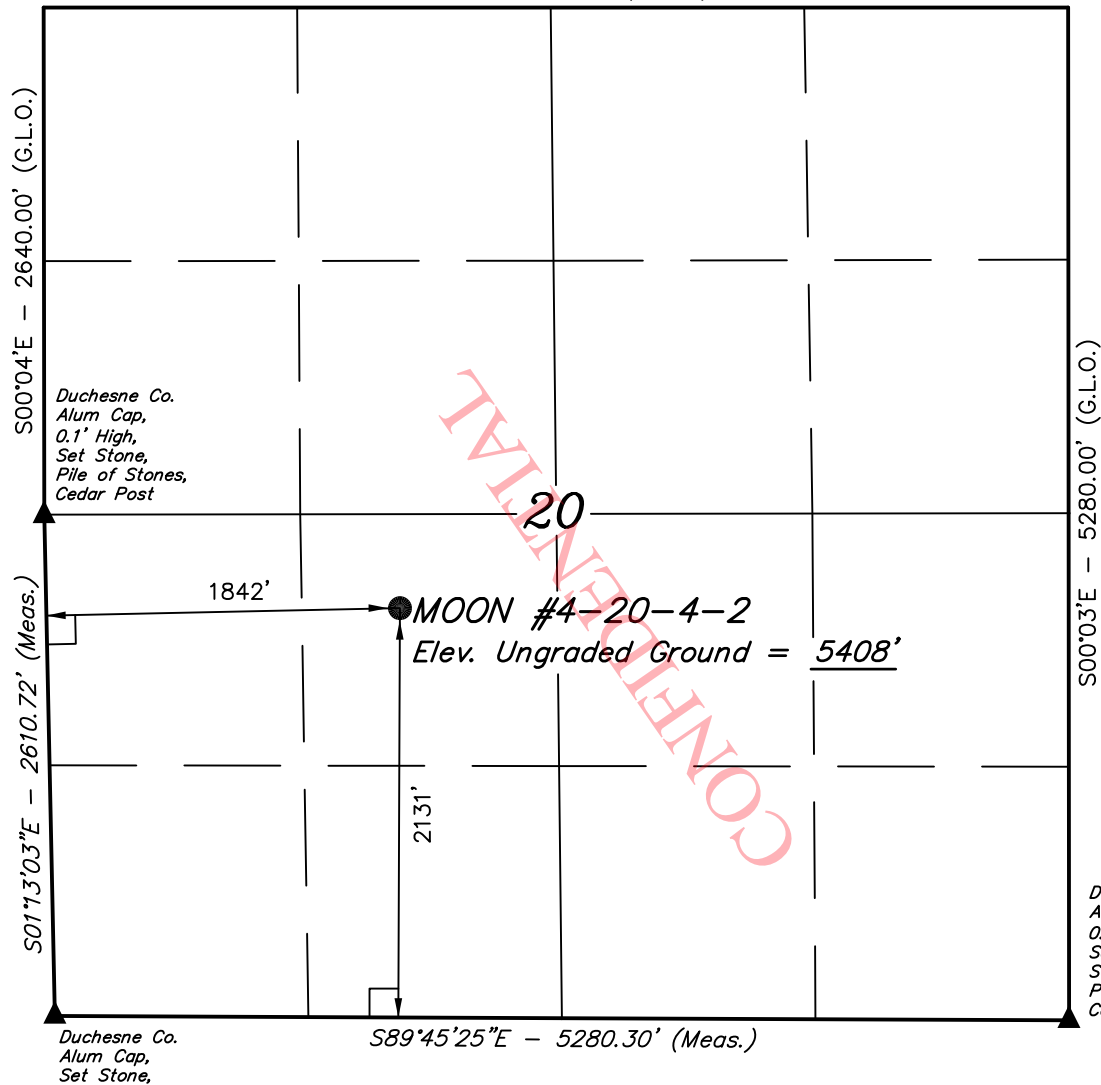
Rocky Mountain Permitting, LLC  
Terry L. Hoffman/Permitting Agent  
303.250.0619 Office/Cell  
303.412.8212 Fax  
tlhoffman@q.com

Please use the above mentioned contact for any questions or concerns regarding the Form 3 Application for Permit to Drill, Drilling Plan or scheduling the onsite inspection. If the above mentioned contact is not available you may reach the following person:

Harvest (US) Holding, Inc.  
Joe Schmid  
Uintah Drilling & Production Superintendent  
435.725.1901 Office  
832.794.6019 Cell  
jschmidharvestnr.com

T4S, R2W, U.S.B.&M.

WEST - 5299.80' (G.L.O.)



LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)  
LATITUDE = 40°07'08.69" (40.119081)  
LONGITUDE = 110°08'10.19" (110.136164)  
(NAD 27)  
LATITUDE = 40°07'08.83" (40.119119)  
LONGITUDE = 110°08'07.64" (110.135456)

HARVEST (US) HOLDINGS, INC.

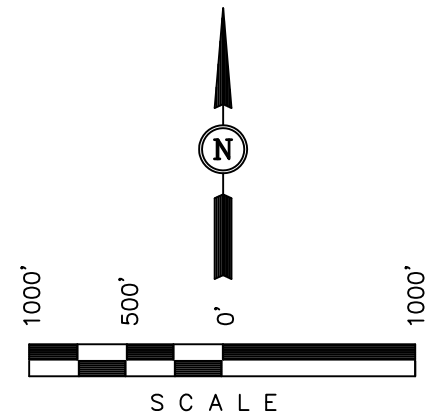
Well location, MOON #4-20-4-2, located as shown in the NE 1/4 SW 1/4 of Section 20, T4S, R2W, U.S.B.&M., Duchesne County, Utah.

BASIS OF ELEVATION

BENCH MARK U52 LOCATED IN THE SW 1/4 OF SECTION 29, T4S, R2W, U.S.B.&M. TAKEN FROM THE MYTON SW QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5508 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

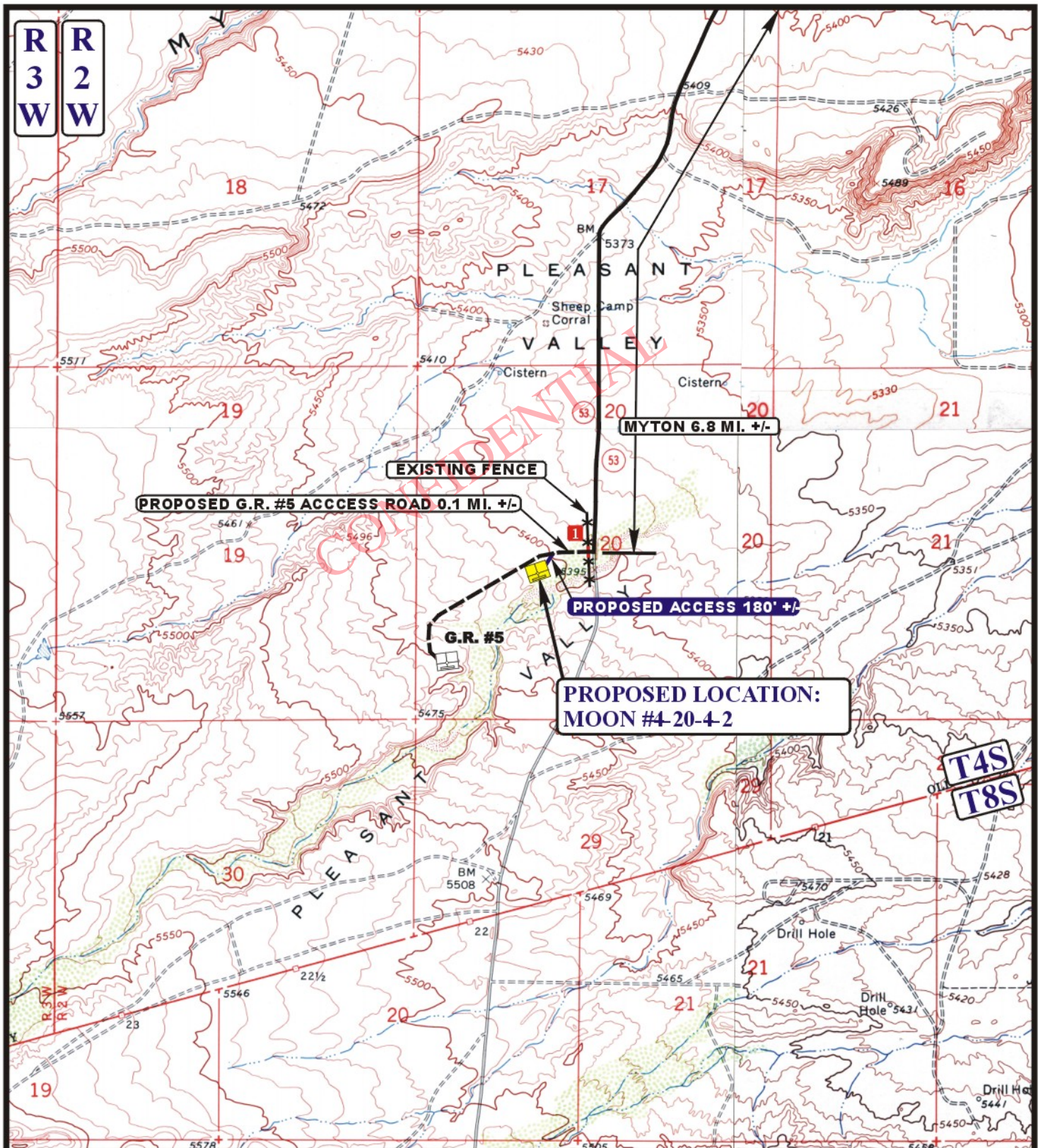
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

REVISED: 11-11-08

UINTAH ENGINEERING & LAND SURVEYING  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-08-08	DATE DRAWN: 10-20-08
PARTY B.B. K.D. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE HARVEST (US) HOLDINGS, INC.	





**LEGEND:**

- EXISTING ROAD
- - - PROPOSED ACCESS ROAD
- \* \* \* \* \* EXISTING FENCE
- 1** CATTLE GUARD REQUIRED

**HARVEST (US) HOLDINGS, INC.**

**MOON #4 20-4-2**

**SECTION 20, T4S, R2W, U.S.B.&M.**

**2131' FSL 1842' FWL**



**Utah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC  
MAP**

**10 20 08**  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: J.H. REVISED: 11-11-08





## MEMORANDUM OF SURFACE DAMAGE RELEASE

State of Utah )  
 )  
 County of Duchesne )

For Ten Dollars (\$10.00) and other adequate consideration, Moon Ranch, LLC of P.O. Box 154, Duchesne, Utah 84021-0154, hereafter referred to as "Surface Owner" has granted, a Surface Damage Release, to Harvest (US) Holdings, Inc. of 1177 Enclave Parkway, Suite 300, Houston, Texas 77077, hereafter referred to as "Harvest", dated November 26, 2008

for the purpose of drilling, and producing oil, gas, and other minerals, laying pipelines, building roads, tanks, power stations, telephone lines and other structures, and producing, saving, take care of, treating, transporting, and owning oil, gas, and other minerals, all on or from Oil & Gas Well on the following lands (the "Lands") in Duchesne County Utah:

Section 20 and Section 29, Township 4 South-Range 2 West, USM, Duchesne County.

See attached Plat for well locations:

Plat well #	Well Name	Location
2	Moon #2-29-4-2	Center T.1N 3 (SESW) Section 29
4	Moon #4-29-4-2	Center NENW Section 29
6	Moon #2-20-4-2	Center SESW Section 20
8	Moon #4-20-4-2	Center NPSW Section 20

The Surface Damage Release is effective as long thereafter as oil, gas, or other minerals are produced from the Lands, or other lands pooled with the Lands, according to and by the terms and provisions of the Lease(s) covering said Lands. This Memorandum is placed of record for the purpose of giving notice of the Surface Damage Release.

SURFACE OWNER:

Gordon Moon  
 Gordon Moon, Managing Member

## ACKNOWLEDGEMENT

STATE OF Utah )  
 )  
 COUNTY OF Duchesne )

BEFORE me, the undersigned, a Notary Public in and for said County and State, on this 26 day of December, 2008, personally appeared Gordon Moon, Managing Member of Moon Ranch, LLC, me known to be the identical person(s) who executed the within and foregoing instrument, and acknowledged to me that they executed the same as a free and voluntary act and deed, for the uses and purposes therein set forth.

Given under my hand and seal the day and year last above written.

My Commission Expires: 1-30-2012

Melvin D. Carr  
 Notary Public



December 4, 2008

Utah Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

RE: Designation of Agent

To Whom It May Concern:

By this letter, Harvest (US) Holdings, Inc. hereby authorizes Terry L. Hoffman with Rocky Mountain Permitting, LLC to act as Agent on behalf of Harvest (US) Holdings, Inc. within the State of Utah. Rocky Mountain Permitting, LLC is authorized to enter into agreements on behalf of Harvest (US) Holdings, Inc. with Federal, State and Local agencies and they shall have the ability to deliver and receive proprietary information for Harvest (US) Holdings, Inc.

If you have any questions or concerns, please feel free to contact myself Joe Schmid at 435.725.1901, or via email at [jschmid@harvestnr.com](mailto:jschmid@harvestnr.com).

I thank you in advance for your cooperation.

Sincerely yours,

HARVEST (US) HOLDINGS, INC.

Joe Schmid  
Uintah Drilling & Production Superintendant

cc: Joe Schmid  
Rocky Mountain Permitting

API Number: 4301350002

Well Name: Moon 4-20-4-2

Township 04.0 S Range 02.0 W Section 20

Meridian: UBM

Operator: HARVEST (US) HOLDINGS, INC

Map Prepared:  
Map Produced by Diana Mason

Units

STATUS

ACTIVE

EXPLORATORY

GAS STORAGE

NF PP OIL

NF SECONDARY

PI OIL

PP GAS

PP GEOTHERML

PP OIL

SECONDARY

TERMINATED

Fields

STATUS

ACTIVE

COMBINED

Sections

Township

Wells Query Events

<all other values>

GIS\_STAT\_TYPE

<Null>

APD

DRL

GI

GS

LA

NEW

OPS

PA

PGW

POW

RET

SGW

SOW

TA

TW

WD

WI

WS

CONFIDENTIAL

T 4 S R 2 W

SOUTH MYTON BENCH FIELD

T 8 S R 16 E



Well Name	HARVEST (US) HOLDINGS, INC Moon 4-20-4-2 43013500020000			
String	Surf	Prod		
Casing Size(in)	8.625	5.500		
Setting Depth (TVD)	600	6600		
Previous Shoe Setting Depth (TVD)	0	600		
Max Mud Weight (ppg)	8.3	8.4		
BOPE Proposed (psi)	0	2000		
Casing Internal Yield (psi)	2950	4810		
Operators Max Anticipated Pressure (psi)	2858	8.3		

Calculations	Surf String	8.625	"
Max BPH (psi)	.052*Setting Depth*MW=	259	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	187	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	127	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	127	NO Reasonable depth, common in area, no expected pressures
Required Casing/BOPE Test Pressure=		600	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	5.500	"
Max BPH (psi)	.052*Setting Depth*MW=	2883	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	2091	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1431	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1563	NO Reasonable, common in area, note max allowed pressure
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		600	psi *Assumes 1psi/ft frac gradient

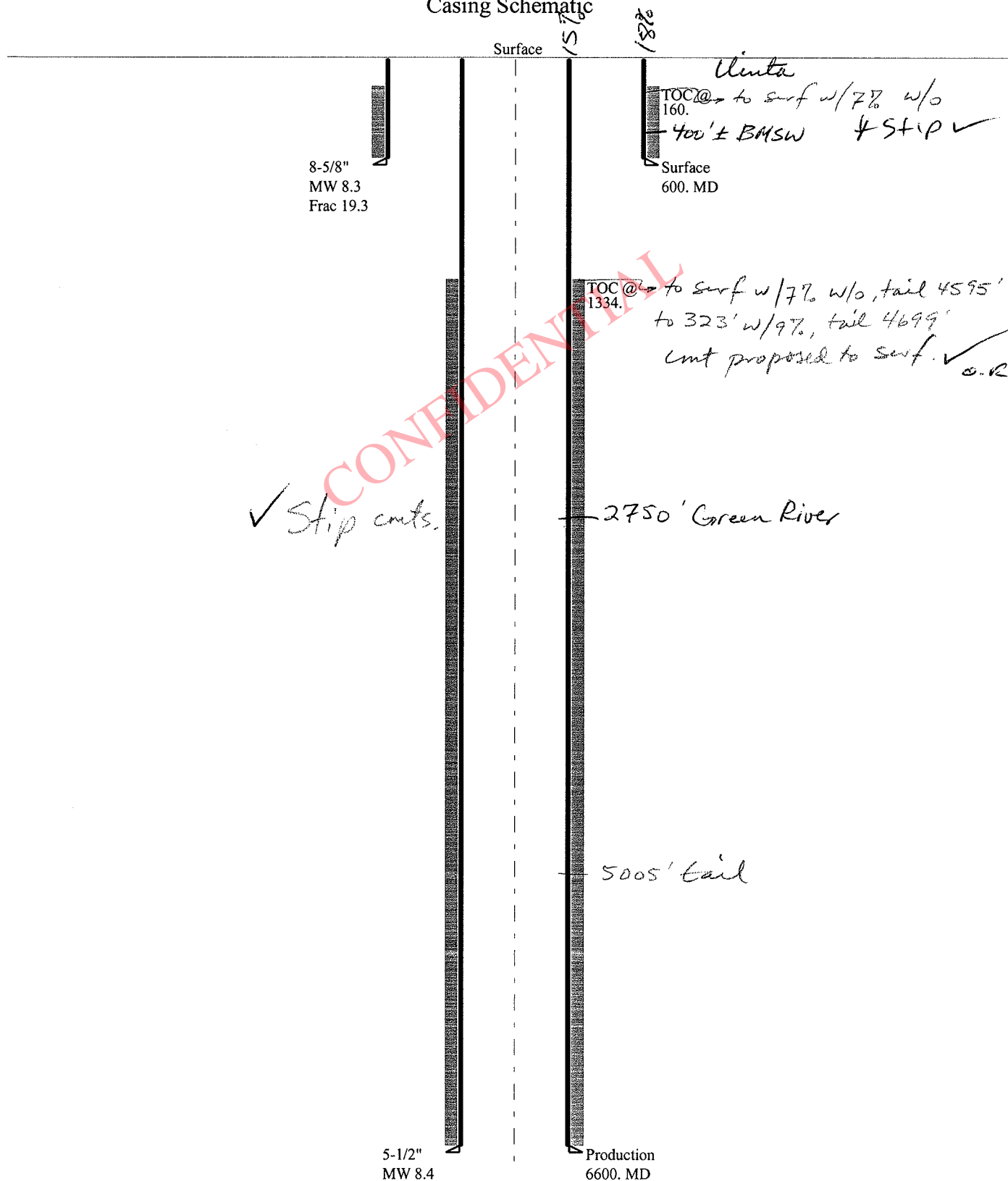
Calculations	String		"
Max BPH (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient



43013500020000 Moon 4-20-4-2

Casing Schematic



Well name:	<b>43013500020000 Moon 4-20-4-2</b>	
Operator:	<b>HARVEST (US) HOLDINGS, INC</b>	
String type:	Surface	Project ID: 43-013-50002
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 8.300 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 82 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 160 ft

**Burst**

Max anticipated surface pressure: 528 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 600 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.70 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on air weight.  
Neutral point: 525 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 6,600 ft  
Next mud weight: 8.400 ppg  
Next setting BHP: 2,880 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 600 ft  
Injection pressure: 600 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	600	8.625	24.00	J-55	ST&C	600	600	7.972	3089

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	259	1370	5.296	600	2950	4.92	14.4	244	16.94 J

Prepared Helen Sadik-Macdonald  
by: Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: March 3, 2009  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 600 ft, a mud weight of 8.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kernler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013500020000 Moon 4-20-4-2</b>		
Operator:	<b>HARVEST (US) HOLDINGS, INC</b>		
String type:	Production	Project ID:	43-013-50002
Location:	DUCHESNE COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 166 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 1,334 ft

**Burst**

Max anticipated surface pressure: 1,428 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 2,880 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

**Non-directional string.**

Tension is based on air weight.  
Neutral point: 5,761 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	6600	5.5	15.50	J-55	LT&C	6600	6600	4.825	23304

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2880	4040	1.403	2880	4810	1.67	102.3	217	2.12 J

Prepared Helen Sadik-Macdonald  
by: Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: March 3, 2009  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 6600 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

**ON-SITE PREDRILL EVALUATION****Utah Division of Oil, Gas and Mining**

**Operator** HARVEST (US) HOLDINGS, INC  
**Well Name** Moon 4-20-4-2  
**API Number** 43013500020000 **APD No** 1240 **Field/Unit** UNDESIGNATED  
**Location: 1/4,1/4** NESW **Sec** 20 **Tw** 4.0S **Rng** 2.0W 2131 FSL 1842 FWL  
**GPS Coord (UTM)** **Surface Owner** Moon Ranch, LLC

**Participants**

Floyd Bartlett (DOGM), Joseph Schmid (Harvest Holdings Drilling/ Production Superintendent) and Terry Hoffman (Rocky Mountain Permitting, LLC; Agent for Harvest Holdings, INC)

**Regional/Local Setting & Topography**

Amended APD (10-21-2009). Harvest (US) Holdings, INC has entered into an agreement with Newfield Production Company to Drill and operate this well. Newfield will complete the drilling using an open mud circulation system with a reserve pit. The Location Layout sheet is amended to include a reserve pit 40' x 80' x 8' deep located 34 feet south of the well-head. The pit will be lined with a 16-mil liner and a felt sub-liner as needed to cushion the liner.

The general area is approximately 7 road miles southwest of Myton, Duchesne County, UT in the middle Pleasant Valley Wash area. Pleasant Valley Wash is an ephemeral drainage, which joins Pariette Draw drainage. The drainage shows no signs of recent significant flows. Pariette Draw runs into the Green River approximately 6 miles downstream from Ouray, Utah and about 11 miles downstream from the location. The area is above the agricultural lands of Pleasant Valley. Broad flats intersected by swales with gentle to moderate side slopes characterize topography. Access is by State and County and planned oil field development roads. Slightly over 0.1 miles of new construction across Moon's private land will be required to reach the location.

The proposed Moon 4-20-4-2 oil well location is immediately northwest of Pleasant Valley Wash and also west of the Nine Mile Road. The area is relatively flat with a very slight slope to the northeast. A slight swale is located southwest of the proposed pad. No drainages intersect the location and no diversions are needed. A berm is planned around the edge of the pad. No springs, streams, seeps or ponds are known to exist in the immediate area. The selected site appears to be a good location for constructing a pad, drilling and operating a well.

Moon Ranches own the surface of the location. The minerals are also privately owned. Mr. Gordonl Moon was invited to the pre-site visit but was not able to attend. A signed landowner agreement exists.

**Surface Use Plan****Current Surface Use**

Grazing  
Wildlife Habitat

<b>New Road Miles</b>	<b>Well Pad</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
0.1	<b>Width</b> 250 <b>Length</b> 315	Onsite	UNTA

**Ancillary Facilities** N

**Waste Management Plan Adequate?****Environmental Parameters**

**Affected Floodplains and/or Wetlands N**

**Flora / Fauna**

Vegetation on the area is a desert shrub type. Approximately 4 inches of snow covered most of the site. Identifiable vegetation included halogeton, horsebrush, cheatgrass, , Indian ricegrass, globe mallow, mat saltbrush, shadscale, curly mesquite, rabbit brush and spring annuals.

Antelope, deer, prairie dogs, small mammals and birds.

**Soil Type and Characteristics**

Deep sandy gravelly loam.

**Erosion Issues N**

**Sedimentation Issues N**

**Site Stability Issues N**

**Drainage Diversion Required?**

**Berm Required? Y**

Operator proposes to berm the exterior on the location.

**Erosion Sedimentation Control Required? N**

**Paleo Survey Run? N    Paleo Potential Observed?    Cultural Survey Run? N    Cultural Resources?**

**Reserve Pit**

Site-Specific Factors		Site Ranking	
<b>Distance to Groundwater (feet)</b>	100 to 200	5	
<b>Distance to Surface Water (feet)</b>	>1000	0	
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0	
<b>Distance to Other Wells (feet)</b>	300 to 1320	10	
<b>Native Soil Type</b>	Mod permeability	10	
<b>Fluid Type</b>	Fresh Water	5	
<b>Drill Cuttings</b>	Normal Rock	0	
<b>Annual Precipitation (inches)</b>		0	
<b>Affected Populations</b>			
<b>Presence Nearby Utility Conduits</b>	Not Present	0	
	<b>Final Score</b>	30	1 Sensitivity Level

**Characteristics / Requirements**

Amended APD (10-21-2009). Harvest (US) Holdings, INC has entered into an agreement with Newfield Production Company to Drill and operate this well. Newfield will complete the drilling using an open mud circulation system with a reserve pit. The Location Layout sheet is amended to include a reserve pit 40' x 80' x 8' deep located 34 feet south of the well-head. The pit will be lined with a 16-mil liner and a felt sub-liner as needed to cushion the liner.

**Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required?**

**Other Observations / Comments**

Amended APD (10-21-2009).

Floyd Bartlett  
**Evaluator**

1/15/2009  
**Date / Time**

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# Application for Permit to Drill

## Statement of Basis

10/29/2009

### Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
1240	43013500020000	LOCKED	OW	P	No
<b>Operator</b>	HARVEST (US) HOLDINGS, INC		<b>Surface Owner-APD</b>	Moon Ranch, LLC	
<b>Well Name</b>	Moon 4-20-4-2		<b>Unit</b>		
<b>Field</b>	UNDESIGNATED		<b>Type of Work</b>	DRILL	
<b>Location</b>	NESW 20 4S 2W U 2131 FSL 1842 FWL GPS Coord (UTM) 573677E 4441120N				

#### Geologic Statement of Basis

Harvest proposes to set 300' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 400'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Surface casing should be extended to cover the estimated base of the moderately saline ground water.

Brad Hill  
**APD Evaluator**

1/22/2009  
**Date / Time**

#### Surface Statement of Basis

Amended APD (10-21-2009). Harvest (US) Holdings, INC has entered into an agreement with Newfield Production Company to Drill and operate this well. Newfield will complete the drilling using an open mud circulation system with a reserve pit. The Location Layout sheet is amended to include a reserve pit 40' x 80' x 8' deep located 34 feet south of the well-head. The pit will be lined with a 16-mil liner and a felt sub-liner as needed to cushion the liner.

The general area is approximately 7 road miles southwest of Myton, Duchesne County, UT in the middle Pleasant Valley Wash area. Pleasant Valley Wash is an ephemeral drainage, which joins Pariette Draw drainage. The drainage shows no signs of recent significant flows. Pariette Draw runs into the Green River approximately 6 miles downstream from Ouray, Utah and about 11 miles downstream from the location. The area is above the agricultural lands of Pleasant Valley. Broad flats intersected by swales with gentle to moderate side slopes characterize topography. Access is by State and County and planned oil field development roads. Slightly over 0.1 miles of new construction across Moon's private land will be required to reach the location.

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Moon Ranches own the surface of the location. The minerals are also privately owned. Mr. Gordonl Moon was invited to the pre-site visit but was not able to attend. A signed landowner agreement exists..

Floyd Bartlett  
**Onsite Evaluator**

1/15/2009  
**Date / Time**

#### Conditions of Approval / Application for Permit to Drill

<b>Category</b>	<b>Condition</b>
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# **Application for Permit to Drill Statement of Basis**

10/29/2009

**Utah Division of Oil, Gas and Mining**

Page 2

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Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner as needed shall be properly installed and maintained in the reserve pit.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

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**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

**APD RECEIVED:** 12/29/2008

**API NO. ASSIGNED:** 43013500020000

**WELL NAME:** Moon 4-20-4-2

**OPERATOR:** HARVEST (US) HOLDINGS, INC (N3520)

**PHONE NUMBER:** 303 250-0619

**CONTACT:** Terry Hoffman

**PROPOSED LOCATION:** NESW 20 040S 020W

**Permit Tech Review:** ☒

**SURFACE:** 2131 FSL 1842 FWL

**Engineering Review:** ☒

**BOTTOM:** 2131 FSL 1842 FWL

**Geology Review:** ☒

**COUNTY:** DUCHESNE

**LATITUDE:** 40.11906

**LONGITUDE:** -110.13539

**UTM SURF EASTINGS:** 573677.00

**NORTHINGS:** 4441120.00

**FIELD NAME:** UNDESIGNATED

**LEASE TYPE:** 4 - Fee

**LEASE NUMBER:** Fee

**PROPOSED PRODUCING FORMATION(S):** GREEN RIVER

**SURFACE OWNER:** 4 - Fee

**COALBED METHANE:** NO

**RECEIVED AND/OR REVIEWED:**

☒ **PLAT**

☒ **Bond:** STATE/FEE - B004657

☐ **Potash**

☐ **Oil Shale 190-5**

☐ **Oil Shale 190-3**

☐ **Oil Shale 190-13**

☒ **Water Permit:** Neil Moon Pond

☐ **RDCC Review:**

☒ **Fee Surface Agreement**

☐ **Intent to Commingle**

**Commingle Approved**

**LOCATION AND SITING:**

☐ **R649-2-3.**

**Unit:**

☐ **R649-3-2. General**

☐ **R649-3-3. Exception**

☒ **Drilling Unit**

**Board Cause No:** Cause 266-01

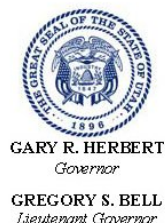
**Effective Date:** 5/5/2009

**Siting:** 460' fr drl u bdry & 920' fr other wells

☐ **R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:** 5 - Statement of Basis - bhill  
25 - Surface Casing - hmaedonald



# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** Moon 4-20-4-2  
**API Well Number:** 43013500020000  
**Lease Number:** Fee  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 10/29/2009

### Issued to:

HARVEST (US) HOLDINGS, INC, 1177 Enclave Parkway, Houston, TX 77077

### Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 266-01. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

### Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

### Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
- OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

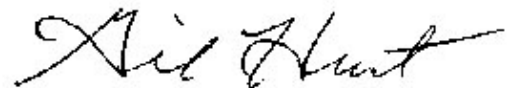
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-942-0871 - after office hours

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

**Approved By:**



Gil Hunt  
Associate Director, Oil & Gas

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**CONFIDENTIAL**FORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other						5. Lease Serial No. <b>FEE</b>			
b. Type of Completion: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resrv., Other: _____						6. If Indian, Allottee or Tribe Name			
2. Name of Operator <b>NEWFIELD EXPLORATION COMPANY</b>						7. Unit or CA Agreement Name and No.			
3. Address <b>1401 17TH ST. SUITE 1000 DENVER, CO 80202</b>				3a. Phone No. (include area code) <b>(435)646-3721</b>		8. Lease Name and Well No. <b>MOON 4-20-4-2</b>			
4. Location of Well (Report location clearly and in accordance with Federal requirements)*  At surface <b>2131' FSL &amp; 1842' FWL (NE/SW) SEC. 20, T4S, R2W</b>  At top prod. interval reported below  At total depth						9. AFI Well No. <b>43-013-50002</b>			
14. Date Spudded <b>02/05/2010</b>						15. Date T.D. Reached <b>02/23/2010</b>			
16. Date Completed <b>05/13/2010</b> <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.						10. Field and Pool or Exploratory <b>MONUMENT BUTTE</b>			
18. Total Depth: MD <b>6875'</b> TVD						11. Sec., T., R., M., on Block and Survey or Area <b>SEC. 20, T4S, R2W</b>			
19. Plug Back T.D.: MD <b>6827'</b> TVD						12. County or Parish <b>DUCHESNE</b>			
20. Depth Bridge Plug Set: MD TVD						13. State <b>UT</b>			
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) <b>DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND</b>						17. Elevations (DF, RKB, RT, GL)* <b>5408' GL 5420' KB</b>			
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy)									
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	8-5/8" J-55	24#	0	629'		331 CLASS G			
7-7/8"	5-1/2" J-55	15.5#	0	6857'		320 PRIMLITE		30'	
						450 50/50 POZ			
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2-7/8"	EOT@ 6572'	TA @ 6474'							
25. Producing Intervals									
Formation		Top	Bottom	26. Perforation Record <b>4837</b>		Size	No. Holes	Perf. Status	
A) Green River				6352-6513' CP.5 CP4		.36"	3	24	
B) Green River				5864-6147' A3 LODC		.34"	3	72	
C) Green River				5610-5616' B.5		.34"	3	18	
D) Green River				5361-5382' D1		.34"	3	27	
27. Acid, Fracture, Treatment, Cement Squeeze, etc.									
Depth Interval		Amount and Type of Material							
6352-6513'		Frac w/ 20066#'s 20/40 sand in 177 bbls of Lightning 17 fluid.							
5864-6147'		Frac w/ 299745#'s 20/40 sand in 1907 bbls of Lightning 17 fluid.							
5610-5616'		Frac w/ 14663#'s 20/40 sand in 129 bbls of Lightning 17 fluid.							
5361-5382'		Frac w/ 45766#'s 20/40 sand in 294 bbls of Lightning 17 fluid.							
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
5-13-10	5-31-10	24	→	114	0	120			2-1/2" x 1-3/4" x 20' RHAC Pump
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status <b>PRODUCING</b>	
			→						
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

\*(See instructions and spaces for additional data on page 2)

**RECEIVED****JUN 14 2010****DIV. OF OIL, GAS & MINING**

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 29. Disposition of Gas (Solid, used for fuel, vented, etc.)

USED FOR FUEL

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

## GEOLOGICAL MARKERS

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GARDEN GULCH MRK GARDEN GULCH 1	4297' 4524'
				GARDEN GULCH 2 POINT 3	4650' 4950'
				X MRKR Y MRKR	5188' 5216'
				DOUGALS CREEK MRK BI CARBONATE MRK	5328' 5583'
				B LIMESTON MRK CASTLE PEAK	5713' 6311'
				BASAL CARBONATE WASATCH	6691' 6822'

## 32. Additional remarks (include plugging procedure):

Stage 5: Green River Formation (PB8) 5106-5112', .34" 3/18 Frac w/ 29594#'s of 20/40 sand in 253 bbls of Lightning 17 fluid

Stage 6: Green River Formation (GB4 GB6) 4837-4911', .34" 3/30 Frac w/ 42862#'s of 20/40 sand in 271 bbls of Lightning 17 fluid

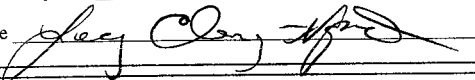
## 33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)     
 ☐ Geologic Report     
 ☐ DST Report     
 ☐ Directional Survey  
☐ Sundry Notice for plugging and cement verification     
 ☐ Core Analysis     
☒ Other: Drilling Daily Activity

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Lucy Chavez-NaupotoTitle Administrative Assistant

Signature


Date 06/08/2010

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)

**Daily Activity Report**

Format For Sundry

**MOON 4-20-4-2****12/1/2009 To 4/28/2010****MOON 4-20-4-2****Waiting on Cement****Date:** 2/13/2010

Ross #21 at 630. Days Since Spud - On 2/14/10 R/U BJ cmt with 331sks class G cmt + 2 % calcium chloride + .25# sk celloflake mixed @ - Drill mouse and rat hole - On 2/5/10 Spud @ 9:00 am drill to 630' P/U and run 14 jts 8 5/8" J-55 24# STC csg set @ 629.01' KB - On 2/4/10 notify Blm and state of spud @ 9:00 am & csg @ 16:00 on 2/5/10. - 15.8 ppg return 10 bbls to pit

**Daily Cost:** \$0**Cumulative Cost:** \$61,497**MOON 4-20-4-2****Rigging down****Date:** 2/18/2010

NDSI #1 at 630. 0 Days Since Spud - Tear down and prepare for field rig move

**Daily Cost:** \$0**Cumulative Cost:** \$64,134**MOON 4-20-4-2****Drill 7 7/8" hole with fresh water****Date:** 2/19/2010

NDSI #1 at 781. 1 Days Since Spud - Install Pason line reader on crown - Drill 7 7/8" hole f/718 to 781' -WOB 10, total RPM 138,GPM 352, ROP 114 - Install rotating rubber - Drill 7 7/8" hole f/605 to 718' -WOB 10, total RPM 138,GPM 352, ROP 113 - Fix compound chain in DW - Drill 7 7/8" hole f/575 to 605' -WOB 10, total RPM 134,GPM 352, - P/U Kelly and gain circulation - 1X hang off sub 2.06' and 21 6" DC 677.64'. Tag @ 575' - P/U Sec FMH655zm 7 7/8" PDC bit, Protech 7/8 5 M.M. 1.5 °, Extreme Tools 1x Monel collar 30.61' - Wait on Extreme MWD hand - Surface csg @ 1500 psi 30 min test good. - R/U B&C Quicktest - Test kelly,safty valve,choke,pipe and blind rams. High presser @ 2000 Psi 10 Min - MIRU w/Jones Trucking set All equipment ( 9 mile rig move from the Roberts 4-19-4-1) - on 2/17/10 noifiy BLM and State of Rig move @ 7:00 and BOP test @ 13:00 on 2/18/10

**Daily Cost:** \$0**Cumulative Cost:** \$88,050**MOON 4-20-4-2****Drill 7 7/8" hole with fresh water****Date:** 2/20/2010

NDSI #1 at 2812. 2 Days Since Spud - Drill 7 7/8" hole f/1686' to 2812' -WOB 15, total RPM 160,GPM 352, ROP 88 - Drill 7 7/8" hole f/781 to 1686' -WOB 12, total RPM 160,GPM 352, ROP 129.2 - Rig service funtion test pipe rams and crownomatic- no flow

**Daily Cost:** \$0**Cumulative Cost:** \$143,125**MOON 4-20-4-2****Drill 7 7/8" hole with fresh water****Date:** 2/21/2010

NDSI #1 at 4411. 3 Days Since Spud - Drill 7 7/8" hole F-2812 to 3441' w/15K WOB,TRPM-119,GPM-352, Avg ROP-90 ft/hr - Drill 7 7/8" hole F-3441' to 3536' w/ 15K WOB,TRPM-119,GPM-352,Avg ROP-48 ft/hr - Drill 7 7/8" hole F-3536 to 4411' w/ 15K WOB, TRPM-119,GPM-352,Avg ROP-67 ft/hr - NO H2S reported in last 24 hours/ No flow - Work on kelly spinners, - Rig Service, check crownomatic and BOP

**Daily Cost:** \$0**Cumulative Cost:** \$158,647**MOON 4-20-4-2****Drill 7 7/8" hole with fresh water****Date:** 2/22/2010

NDSI #1 at 6036. 4 Days Since Spud - No H2S or Flow in last 24 hours - Slid @4755-4770', and another slid around 5150 , 15 ft. - Drill 7 7/8" hole F/4411' to 4849' w/ 18K-WOB,TRPM-119,GPM-352,Avg ROP-80 ft/hr - Drill 7 7/8" hole F/ 4849' to 6036' w/ 18K-WOB,TRPM-119,GPM-352,Avg ROP-66 ft/hr - Rig Service, function test BOP and Crownomatic

**Daily Cost:** \$0**Cumulative Cost:** \$181,719**MOON 4-20-4-2****Waiting on Cement****Date:** 2/23/2010

NDSI #1 at 6875. 6 Days Since Spud - Drill 7 7/8" hole F/6036 to 6397' w/ 20K WOB,TRPM-125,GPM-338, Avg ROP 66 ft/hr - Rig service, function test crownomatic and BOP - Drill 7 7/8" hole F/ 6397' to 6875' TD,w/23K WOB,TRPM-125,GPM-338,Avg ROP 40 ft/hr - Circulate& condition hole to lay down for logs. Check flow = NO FLOW - Lay down drill pipe and BHA - No H2S or flow reported in last 24 hours - Had to slide quite a bit last 450 feet, waiting on slide report to get depths - Lay down drill pipe and BHA - R/U PSI & run triple combo(density porosity,resistivity,gamma ray) from loggers TD=6872' to Surface - Change rams to 5 1/2", R/U B&C Quicktest and test to 2000# for 10 minutes - R/U QT Casing and run 161 jts 5.5" J-55 LTC, shoe set @ 6856.66', top of float @6842.61' and top of - short jt. @ 4663.51', transfer 5 jts (216.1') to State 15-36-8-15. - R/U BJ head test to 3500# and circulate casing - Pump 10bbls dye,20 bbls mud clean, 20 bbls fresh , 199 bbls (320 sks) lead cement @ 11ppg &3.53yield - (PL II+3% KCL+5#CSE+.5#CF+.5SMS+FP+SF)pumped 99 bbls(450 sks) tail @ 14.4ppg & 1.24 yield - (50:50 Poz+3 % KCL+.5%EC-1+.25#CF+.3SMS+FP) displaced w/ 163 bbls of fresh water - Returned 25 bbls back to pit, bumped plug to 514 psi. BLM and State were notified - Nipple down and set 5 1/2" casing slips w/ 101,000# tension - Clean mud tanks - Release rig @ 2230 on2-23-10 - slid 38 ft around 6400' - Drill 7 7/8" hole F/6036 to 6397' w/ 20K WOB,TRPM-125,GPM-338, Avg ROP 66 ft/hr - Rig service, function test crownomatic and BOP - Drill 7 7/8" hole F/ 6397' to 6875' TD,w/23K WOB,TRPM-125,GPM-338,Avg ROP 40 ft/hr - Circulate& condition hole to lay down for logs. Check flow = NO FLOW - Lay down drill pipe and BHA - No H2S or flow reported in last 24 hours - Had to slide quite a bit last 450 feet, waiting on slide report to get depths - Lay down drill pipe and BHA - R/U PSI & run triple combo(density porosity,resistivity,gamma ray) from loggers TD=6872' to Surface - Change rams to 5 1/2", R/U B&C Quicktest and test to 2000# for 10 minutes - R/U QT Casing and run 161 jts 5.5" J-55 LTC, shoe set @ 6856.66', top of float @6842.61' and top of - short jt. @ 4663.51', transfer 5 jts (216.1') to State 15-36-8-15. - R/U BJ head test to 3500# and circulate casing - Pump 10bbls dye,20 bbls mud clean, 20 bbls fresh , 199 bbls (320 sks) lead cement @ 11ppg &3.53yield - (PL II+3% KCL+5#CSE+.5#CF+.5SMS+FP+SF) pumped 99 bbls(450 sks) tail @ 14.4ppg & 1.24 yield - (50:50 Poz+3 % KCL+.5%EC-1+.25#CF+.3SMS+FP) displaced w/ 163 bbls of fresh water - Returned 25 bbls back to pit, bumped plug to 514 psi. BLM and State were notified - Nipple down and set 5 1/2" casing slips w/ 101,000# tension - Clean mud tanks - Release rig @ 2230 on2-23-10 - slid 38 ft around 6400' **Finalized**

**Daily Cost:** \$0**Cumulative Cost:** \$326,095**Pertinent Files:** Go to File List

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL: FOOTAGES AT SURFACE: 2131 FSL 1842 FWL		8. WELL NAME and NUMBER: MOON 4-20-4-2
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESW, 20, T4S, R2W		9. API NUMBER: 4301350002
		10. FIELD AND POOL, OR WILDCAT: MYTON/TRIBAL EDA
		COUNTY: DUCHESNE
		STATE: UT

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 05/13/2010	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Weekly Status Report
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
The above subject well was completed on 05/13/10, attached is a daily completion status report.

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	TITLE Administrative Assistant
SIGNATURE 	DATE 06/08/2010

(This space for State use only)

RECEIVED

JUN 14 2010

DIV. OF OIL, GAS & MINING



**Daily Activity Report**

Format For Sundry

**MOON 4-20-4-2****1/1/2010 To 5/30/2010****3/1/2010 Day: 1****Completion**

Rigless on 3/1/2010 - Run CBL & shoot first stage. 163 BWTR. - Install 5M frac head. NU 6" 5M Cameron BOP. RU H/O truck & pressure test casing, blind rams, frac head & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 6801' cement top @ 30'. Perforate CP4/CP.5 sds as shown in perforation report. 163 BWTR. SWIFN.

**Daily Cost:** \$0**Cumulative Cost:** \$12,432

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**3/4/2010 Day: 2****Completion**

Rigless on 3/4/2010 - Frac 1st stage & perforate stage 2 - Frac 1st stage & perforate 2nd stage.

**Daily Cost:** \$0**Cumulative Cost:** \$12,432

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**3/5/2010 Day: 3****Completion**

Rigless on 3/5/2010 - Frac, perforate & flow well. - Frac & perforate remaining 5 stages. 4278 BWTR. Open well for immediate flowback @ approx 3 BPM. Well flowed for 4 hours & turned to oil. Recovered 576 bbls. SWIFN. 3702 BWTR.

**Daily Cost:** \$0**Cumulative Cost:** \$159,589

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**3/8/2010 Day: 4****Completion**

WWS #3 on 3/8/2010 - MIRU WWS #3. Set kill plug. PU tbg & drill out kill plug. - Check pressure on well, 810 psi. MIRU WWS #3. RU hot oil truck & pump 7 BW down csg @ 225°. RU Perforators WLT. RIH w/ 6K solid composite plug & tag fill @ 4737'. Set plug @ 4710'. POOH & RD WLT. Bleed pressure off well. ND frac BOPs & frac head. NU production WH & BOPs. RU rig floor. Talley & PU new 4 3/4" chomp bit, bit sub & 2 7/8" tbg. Tag plug @ 4710', RU power swivel, drill out plug in 20 min. Circulate well for 2 hours attempting to clean up. RU to flow into tanks. Turn over to flowback hand @ 6:00 PM. 3309 BWTR.

**Daily Cost:** \$0**Cumulative Cost:** \$170,565

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**3/9/2010 Day: 5****Completion**

WWS #3 on 3/9/2010 - Drill out plugs - Check pressure on well, 850 psi tbg & 1050 psi csg. Bleed pressure off well. Circulate well until workable. Continue PU & TIH w/ tbg. Tag plug @ 4961', drill out plug in 13 min. Continue PU tbg & tag plug @ 5162'. Drill out plug in 15 min. Continue PU tbg & tag plug @ 5432'. Drill out plug in 19 min. Continue PU tbg & tag plug @ 5665'. Drill out plug in 20 min. Continue PU tbg & tag fill @ 5979'. Wait 2 1/2 hours for water. Pump 100 bbls to get circulation. Clean out 59' of fill to 5920'. Circulate well clean, poor circulation. Circulate for 1 1/2 hours, no sand in returns. Reverse circulate well, unable to circulate sand. Pump down tbg & clean out to 6093'. Circulate well for 2 1/2 hours to wash

sand up. TOOH w/ 8- jts tbg. EOT @ 5834'. SWIFN. 3979 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$209,348

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**3/10/2010 Day: 6****Completion**

WWS #3 on 3/10/2010 - Drill out plug, clean out to PBTD. Swab for clean up. - Check pressure on well, 0 psi. Tag fill @ 6093'. RU power swivel & Superior pump truck. Clean out 112' of fill to plug @ 6205'. Drill out plug in 20 min. Continue PU tbg, TIH & tag fill @ 6684'. Clean out 158' of fill to PBTD @ 6842'. Circulate well clean. RD power swivel. RD Superior pump truck. LD 3- jts tbg & place EOT @ 6748'. RU swab equipment. Made 18 swab runs w/ SFL @ 500' & EFL @ 900'. Recovered 290 bbls ending w/ no show of sand & trace of oil. SWIFN. 4159 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$216,673

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**3/11/2010 Day: 7****Completion**

WWS #3 on 3/11/2010 - Round trip tbg & PU rods. PWOP. - Check pressure on well, 130 psi tbg & csg. Bleed pressure off well. TIH w/ tbg & tag fill @ 6827' (15' of new fill). LD tbg not needed for production string. TOOH w/ tbg & LD bit sub & bit. TIH w/ production tbg as detailed. RD rig floor. ND BOPs. Set TA @ 6474' w/ 18,000#s tension. NU wellhead. X-over for rods. Flush tbg w/ 60 BW. PU & prime Central Hydraulic 2 1/2" X 1 1/2" X 20' 40 ring pump. PU & TIH w/ rods as detailed. RU pumping unit. Fill tbg w/ 1 BW, stoke test pump w/ unit to 800 psi. RDMOSU. Left well shut in due to over run battery. 4254 BWTR. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$264,168

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**Pertinent Files: Go to File List**

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

LEASE DESIGNATION AND SERIAL NUMBER:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		8. WELL NAME and NUMBER: MOON 4-20-4-2
4. LOCATION OF WELL: FOOTAGES AT SURFACE:		9. API NUMBER: 4301350002
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESW, 20, T4S, R2W		10. FIELD AND POOL, OR WILDCAT: MONUMENT BUTTE
		COUNTY: DUCHESNE
		STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 02/15/2010	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Spud Notice
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 2/5/10 MIRU Ross # 21. Spud well @ 9:00 am. Drill 630' of 12 1/4" hole with air mist. TIH W/ 14 Jt's 8 5/8" J-55 24 # csgn. Set @ 629.01' KB. On 2/14/10 cement with 331 sks of class "G" w/ 2% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cf/ sk yeild. Returned 10 bbls cement to pit. WOC.

RECEIVED

MAR 01 2010

DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Jim Smith

TITLE Drilling Foreman

SIGNATURE

DATE 02/15/2010

(This space for State use only)

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

**8 5/8" CASING SET AT 629.01**

LAST CASING \_\_\_\_\_ SET AT \_\_\_\_\_  
 DATUM \_\_\_\_\_ **12** \_\_\_\_\_  
 DATUM TO CUT OFF CASING \_\_\_\_\_ **12** \_\_\_\_\_  
 DATUM TO BRADENHEAD FLANGE \_\_\_\_\_ **12** \_\_\_\_\_  
 TD DRILLER **630** \_\_\_\_\_ LOGGER \_\_\_\_\_  
 HOLE SIZE **12 1/4"** \_\_\_\_\_

OPERATOR Newfield Exploration Company  
WELL MOON 4-20-4-2  
FIELD/PROSPECT MB  
CONTRACTOR & RIG # Ross # 21

## LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	COND T	LENGTH	
1		Guide shoe				A	0.9	
1		WH				A	0.95	
1	8 5/8"	Shoe jt	24	J-55	STC	A	44.57	
13	8 5/8"	Csg	24	J-55	STC	A	572.59	
CASING INVENTORY BAL.			FEET	JTS	TOTAL LENGTH OF STRING			619.01
TOTAL LENGTH OF STRING			619.01	14	LESS CUT OFF PIECE			2
LESS NON CSG. ITEMS			1.85		PLUS DATUM TO T/CUT OFF CSG			12
PLUS FULL JTS. LEFT OUT			0		CASING SET DEPTH			629.01
TOTAL			617.16	14	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)			617.16	14				
TIMING					GOOD CIRC THRU JOB _____ Bbls CMT CIRC TO SURFACE <u>10</u> RECIPROCATED PIPEL <u>No</u> BUMPED PLUG TO <u>220</u>			
BEGIN RUN CSG.	Spud	9:00 AM	2/5/2010					
CSG. IN HOLE		8:00 AM	2/6/2010					
BEGIN CIRC		8:30 AM	2/14/2010					
BEGIN PUMP CMT		8:42 AM	2/14/2010					
BEGIN DSPL. CMT		8:59 AM	2/14/2010					
PLUG DOWN		9:12 AM	2/14/2010					

[illegible]

COMPANY REPRESENTATIVE

**Jim Smith**

DATE 2/14/2010

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM -FORM 6

OPERATOR: NEWFIELD PRODUCTION COMPANY  
ADDRESS: RT. 3 BOX 3630  
MYTON, UT 84052

OPERATOR ACCT. NO. N2695

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	99999	17400 ✓	4301334087	BELUGA FEDERAL G-17-9-17	NWNW	17	9S	17E	DUCHESNE	2/10/2010	2/25/10
WELL 1 COMMENTS: GRRV BHL = NWNW											
A	99999	17522	4301350002	MOON 4-20-4-2	NESW	20	4S	2W	DUCHESNE	2/5/2010	2/25/10
GRRV CONFIDENTIAL											
A	99999	17523	4301350191	KIEPE 8-24-4-2	SENE	24	4S	2W	DUCHESNE	2/9/2010	2/25/10
GRRV											
B	99999	17400 ✓	4301334156	BELUGA FEDERAL D-18-9-17	SWSW	07	9S	17E	DUCHESNE	2/12/2010	2/25/10
GRRV BHL = Sec 18 NWNE											
A	99999	17524	4301350158	UTE TRIBAL 10-26-4-3	NWSE	26	4S	3W	DUCHESNE	2/11/2010	2/25/10
WELL 5 COMMENTS: GRRV											
WELL 5 COMMENTS:											

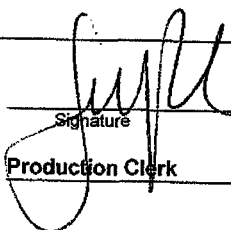
ACTION CODES (See instructions on back of form)

- A - new entity for new well (single well only)
- B - well to existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

RECEIVED  
FEB 18 2010

DIV. OF OIL, GAS & MINING

Signature:   
Jentri Park  
Production Clerk  
02/18/10  
Date

SPUD  
BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross #21 Submitted  
By Jim Smith Phone Number 823-  
2072

Well Name/Number Moon 4-20-4-2

Qtr/Qtr NE/SW Section 20 Township 4S Range 2W

Lease Serial Number FEE

API Number 43-013-50002

Spud Notice – Spud is the initial spudding of the well, not drilling  
out below a casing string.

Date/Time 2/5/10 9:00 AM ☒ PM ☐

Casing – Please report time casing run starts, not cementing  
times.

- ☒ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

Date/Time 2/5/10 4:00 AM ☐ PM ☒

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time \_\_\_\_\_ AM ☐ PM ☐

Remarks \_\_\_\_\_